





# Asea Brown Boveri Ltd. (ABB)

Buv

Rs.3,556

Growth momentum to continue

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Ashish Apte e.info@idbicapital.com

Rabindra Nath Nayak rabindra.nayak@idbicapital.com

Nifty: 3822; Sensex: 13072

#### **Key Stock Data**

Sector	Electric Equipment
Bloomberg/Reuters	ABB@IN/ABB.BO
Shares o/s (m)	42.4
Market cap (Rs bn)	151
Market cap (US\$ m)	3,502
3-m daily average vo	ol. 32,383

#### **Price Performance**

52-week high/low	Rs.4,000/1,920				
	-1m	-3m	-12m		
Absolute (%)	(1.9)	(0.7)	21.6		
Rel to Sensex (%)	(1.5)	6.3	6.4		

#### Shareholding Pattern (%)

Promoters	52.11
FIIs/NRIs/OCBs/GDR	17.39
MFs/Banks/FIs	17.94
Non Promoter Corporate	1.28
Public & Others	11.29

#### Stock vs Relative to Sensex



Note: Price as of 28 March, 2007

## **Summary**

Asea Brown Boveri Ltd. (ABB) is the leader in its key end markets – power Transmission and Distribution (T&D) and industrial capex both of which are expected to witness sustained momentum. Over the last 5-years ABB's revenues have grown 4 times from Rs.10,416m to Rs.42,740m. The business momentum remaining strong, we estimate a 2-year Revenue and PAT CAGR growth of 45.5% and 48% respectively. Our DCF values ABB at Rs.4,029. At the current price of Rs.3,556, the stock is quoting at 31.1x CY07E EPS of Rs.114.2 and 20.2x CY08E EPS of Rs.175.9. We recommend a 'Buy' with a 1-year price target of Rs.4,029 (~13% upside).

## **Investment highlights**

#### Strong growth momentum

ABB is a strong player in T&D products and projects, one of the big beneficiaries of the increased spending in the Indian power sector. ABB's offering includes solutions like High Voltage Direct Current (HVDC) and Flexible AC Transmissions Systems (FACTS) that facilitate higher capacity utilization as well as efficient and reliable transmission of quality power. Under "power for all" by 2012 mission, transmission lines are targeted at 3,50,000 CKm vs current 2,65,000 CKm.

The Government is now focusing on reducing Aggregate Technical & Commercial losses (AT&C), currently above 35% in India vs global norm of 10-12%. ABB has technological prowess in distribution, in providing turnkey solutions for sub-stations, automation and network management. It is the market leader having first introduced in India SCADA, WAMS and a host of technologies that help reduce T&D losses.

#### Spurt in industrial capex drives automation business division

With most of the large industrial groups (i.e. Reliance and Tata's) as clients, the increasing trend towards upgrading and modernization of facilities to international standards is driving strong growth for automation products. Over the next 3-years an aggregate capex worth Rs.2,750bn have been announced by different sectors viz. oil and gas, petrochemicals, cement, steel, automobiles etc. which would aid the automation business.

#### MNC Parentage of ABB Switzerland

ABB India is a part of the US\$ 26bn ABB Group which has operations in more than 100 countries with 107,000 employees. ABB India has the advantage of bringing to its manufacturing plants in India the best practices used in ABB group worldwide, transfer of high class technology in terms of designing of products of a very high quality. India is the only ABB global outsourcing base for certain products.

Table 1: Financial snapshot

(Rs m)

Year-end: December	CY05	CY06	CY07E	CY08E
Net sales	29,631	42,740	60,160	90,515
EBITDA	3,693	5,504	7,807	11,919
PAT	2,187	3,403	4,841	7,456
EPS (Rs.)	51.6	80.3	114.2	175.9
P/E (x)	27.6	35.2	31.1	20.2



### Investment positives

#### Strong growth momentum

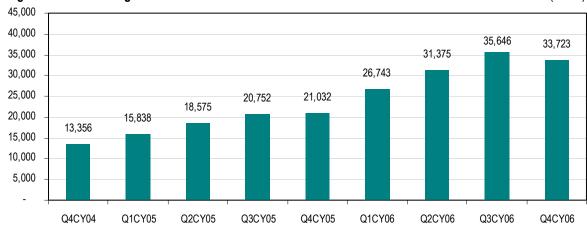
Strong growth momentum expected to continue Reforms in the power sector and focus to reduce T&D losses have created a strong demand for ABB's specialized products and project management services. Power technologies contributed Rs.27,227m i.e ~60% to CY06 revenues, estimated to grow by 38% CAGR over the next 2-years. Some projects being implemented include the Rs.1.8bn Karnataka Power Transmission project and the Rs.4.3bn SCADA project to ONGC.

Industrial automation is another important contributor to revenues, accounting for Rs.18,319m i.e. ~40% to CY06 revenues. With most of the large industrial groups (i.e. Reliance, Tata's and Jindal) as clients, the increasing trend towards upgrading and modernization of facilities to international standards is driving strong growth for automation products. Over the next 3-years an aggregate capex worth Rs.2,750bn have been announced by different sectors viz. oil and gas, petrochemicals, cement, steel, automobiles etc. which would aid the automation business.

Being a key beneficiary in the spending on T&D, the rising order inflows have resulted in rising order backlogs for the company. ABB's order backlog (December 2006) is Rs.34bn. As ABB has demonstrated strong and timely execution capabilities in project management, we view the rising backlogs present a strong growth momentum and earnings visibility. Based on the strong growth momentum in orders, we estimate a 45% CAGR revenue growth between CY06-08 vs 36% between CY02-CY05.



(Rs. m)



Rising order backlog

Source: Company reports; IDBI Capital Market Services

#### Transmission

Investment in power transmission and distribution (T&D) vis-à-vis generation is low in India, currently standing at just around 0.5x generation capex against the acceptable 1:1 ratio. This is set to change going forward. Under "power for all" by 2012 mission transmission lines are expected to expand up to 3,50,000 CKm from the current 2,65,000 CKm.

During XI plan, a national grid with inter-state transmission network is being drawn up. This grid is estimated to have a transfer capacity of 37,000 MW by 2012, requiring investment of Rs.700,000m (US\$ 15bn) as per Powergrid's estimates. The enhanced electricity transfer capability is being designed to support power trading, open access and help to match regional surplus and shortages.

Central government has kicked off a tariff based competitive bidding process for 14 large transmission projects entailing a total investment of about Rs.200,000m, opening up the doors for private participation. The projects are to be awarded to developers on Build-Own-operate basis. The thrust of the initiative is to seek greater private investment into the power transmission sector.

ABB is a very strong player in the transmission arena. ABB's offering includes solutions like HVDC and FACTS that facilitate higher capacity utilization as well as efficient and reliable transmission of quality power. We believe that the thrust on power transmission in XIth plan would auger well for a company like ABB which has a strong brand name and MNC parentage and we expect it to be a key beneficiary in transmission arena.

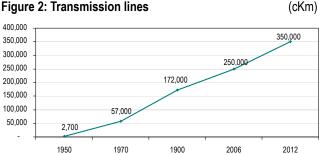
Greater focus on transmission under "power for all by 2012" mission – ABB to be a key beneficiary



A case in point was when for the first time in India a 765 kV transmission network was built (in India the norm was 400 kV). However ABB, the leading power and automation technology group won India's first major equipment orders for 765 kV Extra High Voltage (EHV) transformers and shunt reactors, from National Thermal Power Corporation (NTPC), the country's leading power generation utility and PGCIL (Power Grid Corporation of India Ltd.), the central power transmission utility. These are the largest transformer banks and the highest voltage class transformers to be installed in India. ABB with its strong brand name and MNC parentage is expected to be a key beneficiary in transmission arena.

Out of the total current capacity, 50000 CKm, which carries nearly 40% of power produced within the country is maintained and operated by Powergrid Corporation. Powergrid Corporation is the main central transmission utility in India. Most of

Figure 2: Transmission lines



Source: Company reports; IDBI Capital Market Services

the utilities use Powergrid's transmission lines. In the privatization era many utilities are establishing Joint ventures with Powergrid Corporation. SEBs have their own transmission systems which are spread all over the state. Its operations are coordinated from the State Load Dispatch Centre. However the restructured states have separate transmission corporations. It is expected that the transmission system will continue to remain in the hands of the state sector over the medium term.

#### Distribution

The core problem of India's power shortages is the high T&D losses. Total power generation in India in a year is worth more than Rs.10, 00,000m. Of this, power worth about Rs.3,50,000m is lost. The loss currently at 35% contrasts with the global norm of 10-12%.

To reduce T&D losses, the distribution sector is now being opened up to allow open access and privatization in some states. SEB's commercial losses are reducing and efforts are being made to make them financially viable. This results into reduction of AT&C losses. However, the distribution is still a neglected sector where Rs.30, 00,000m (US\$ 7bn) in investment is required.

An accelerated Power Development Reform Program (APDRP) was launched in 2003, aimed at cutting AT&C losses by supporting distribution reforms through investments and incentives. It was the key driver for a companies like NDPL, a Delhi based distribution company which has invested Rs.10bn over the last four years to bring in AT&C loss from 54% to 28%.

ABB's technological prowess in distribution is in form of turnkey solutions for sub-stations, distribution automation and network management. This includes a host of technologies that help reduce T&D losses, increase uptime and improve the overall reliability of the grid. We believe that greater attention being paid to cut the AT&C losses and greater incentives being provided through the APRDP scheme, ABB stands to be a major beneficiary

A case in point was when various Governments of Chennai, Hyderabad and Delhi thought to monitor and control the power distribution network, they awarded the contract to ABB which installed its SCADA and WAMS systems.

HVDC: It is an efficient means for long distance bulk power transmission and for connecting asynchronous power grids.

HVDC Light system: It is designed for underground or underwater power transmission. Its environmental benefits include no overhead power lines and a neutral electromagnetic field.

<u>FACTS:</u> They enhance the capacity of existing networks and increase power quality.

SCADA: Supervisory Control and Data Acquisition systems.

WAMS: Wide Area Monitoring systems.

AT&C: Aggregate Technical & Commercial losses.

EMS: Energy Management System.

DMS: Data Management System.

Greater focus on reducing AT&C losses - ABB has the technological prowess



### Rise in industrial capex drives automation business

Large capex cycle in various sectors to benefit the Automation division of ABB The automation technology division, which forms nearly 42% of ABB India sales will be deriving benefits from large capex cycle occurring in various sectors in India. Over the next 3-years an aggregate capex worth Rs.2,750bn have been announced by different sectors viz. oil and gas, petrochemicals, cement, steel, automobiles etc. Around 15-20% of this capex would be related to automation products. ABB with ~20% market share can garner contracts worth Rs.82bn over the next 3-years. Already it has prestigious names like Reliance Group and Tata Group for its automation products. Further, new product launches like 800XA and SCADA system would provide further impetus to this growing division.

The company is also trying to get into new streams of revenue for its automation business. For example industries like textile, sugar, SEZ, water irrigation, food processing and railways are several new verticals where the company is eyeing an opportunity for additional revenue stream.

#### MNC Parentage of ABB Switzerland

ABB India is a part of the US\$ 26bn ABB Group which has operations in more than 100 countries with 107,000 employees. With revenues of ~US\$ 660m ABB India forms a small portion of the overall operations. However, as a part of overall strategy, India along with China and Turkey are considered as "high growth low cost" destinations for the ABB Group. Following changes have occurred in the last few years which are extremely positive for operations of ABB India Ltd:

#### Technology

The parent company has a market leadership in power technologies (over 20% market share) and also a very strong player in automation technologies. Hence ABB India has the advantage of bringing to its manufacturing plants in India the best practices used in ABB group worldwide, transfer of high class technology in terms of designing of products of a very high quality.

ABB has pioneered several technologies in India including the introduction of self-blast SF6 technology, first High Voltage Direct Current (HVDC) back-to-back converter station and transmission line, first Static Var Compensation (SVC) solution, first 400 kV switchyard, turnkey substation for first barge mounted power plant and many more. It is a policy in the ABB group that whenever a product is launched, it is launched simultaneously throughout the world viz. there is no difference in the quality of a product sold in India and anywhere else in the world.

This MNC background helps ABB India to compete effectively with players like Siemens, Areva T&D and Crompton Greaves (all of whom have a MNC background) and strong Indian players like BHEL and Emcolt. It is because of its extremely strong technology that ABB India commands a price premium for its products and this technology acts as an entry barrier.

#### R&D

A global engineering center has been formed in Bangalore. It houses over 500 engineers who have domain expertise in different areas. Automation and drives is a US\$ 120bn market of which 25% comes from internal services an area where the engineering center can feature.

#### Outsourcing hub

India is the only ABB global outsourcing base for High voltage (72.5 kV) outdoor and indoor circuit breakers from Vadodara factory, Medium voltage (11 to 40.5 kV) outdoor vacuum / SF6 circuit breakers and magnetic actuators from Nashik factory. These factories of ABB India are supplying to global market requirements of ABB. ABB India is also identified as an efficient low cost production base for Printer Circuit Boards (PCB) by the parent. All this use of ABB India as a low cost destination has resulted in steady rise in exports from ABB India. The exports from ABB India have grown from Rs.684m in CY01 to Rs.2,109m in CY05 which is a CAGR of 32.5%.

Global parent helps in technology and R&D

ABB India, a outsourcing hub for certain products to aid exports



# Company profile

Ably led by Mr. Ravi Uppal along with a strong management team ABB India is the 51% held subsidiary of Asea Brown Boveri Ltd., Zurich. Incorporated in 1949 as Hindustan Electric Company Ltd., it entered into a technical collaboration with Brown Boveri & Co, Switzerland in 1962. In 1988, Asea, Sweden and BBC Brown Boveri, Switzerland merged to become ABB.

ABB India is led by Mr. Ravi Uppal who is the Vice Chairman and Managing Director of the company since 2001. Mr. Uppal is an IIT (Delhi) graduate and an IIM (Ahmedabad) post-graduate. He was initially involved with ABB in Europe, Middle East and Asia before moving on to Volvo where he created *Volvo* as a niche brand in buses segment. In 2001 he was requested to come back by the Zurich management of ABB principal and hence became the CEO of Indian operations in 2001.

He has ably led ABB India for the last 6-years whereby the net sales increased from Rs.10,416m in 2001 to Rs.42,740m in 2006 which is quadruple increase in 6-years. The net profits increased from Rs.653m in 2001 to Rs.3,403m in 2006 which is increase of 5 times in 6-years.

#### Divisions of ABB

ABB operates in 2 core divisions – Power T&D and Automation.

#### Power T&D products

Power products are the key components to transmit and distribute electricity. The division incorporates ABB's manufacturing network for transformers, switchgear, circuit breakers, cables and associated equipment. It also offers all the services needed to ensure products' performance and extend their lifespan.

Power Systems offers turnkey systems and services for power T&D grids and plants. Substations and substation automation systems are key areas. Additional highlights include flexible alternating current transmission systems (FACTS), high-voltage direct current (HVDC) systems and network management systems. In power generation, Power Systems offers the instrumentation, control and electrification of power plants.

#### Automation products

Major automation hardware products include drives, motors and generators, low voltage products, instrumentation and analytical, and power electronics. In process automation, the focus is to provide customers with integrated solutions for control, plant optimization, and industry-specific application knowledge. The industries served include oil and gas, power, chemicals and pharmaceuticals, pulp and paper, metals and minerals, marine and turbocharging.

ABB has the world's largest installed base of industrial robots – also providing robot software, peripheral equipment and modular manufacturing cells for tasks such as assembly, painting and finishing, and machine tending. Key markets include automotive, foundry, packaging, material handling and consumer industries. A strong solution focus leverages thousands of successful applications for manufacturers worldwide.



### **Financials**

The top line (revenues) has increased by a whooping 44% for Q4CY06 vis-à-vis Q4CY05. For the full year FY06, the revenues have increased by a healthy 44.2%. This growth has been led by continued power sector investments across the value chains which are gathering pace, driven by generation capacity additions, transmission network augmentation, grid reliability and efficiency improvements. Industrial growth is also promising, both in terms of capacity additions and productivity enhancement initiatives. The operating profit (EBITDA) for Q4CY06 showed a jump of 37% vis-à-vis same period of the earlier year. The EBITDA margins (excluding other income) for Q4CY06 have dropped to 13.6% as compared to 14.1% for Q4CY05.

### ■ Table 2: Quarter history

(Rs. m)

Year-end: December	Q4CY06	Q4CY05	YoY Change (%)	Q1CY06	Q2CY06	Q3CY06
Gross revenues	14,263	9,857	45	8,029	9,742	10,706
QoQ growth (%)	33.2	38.7		(18.5)	21.3	9.9
Net total revenues	14,437	10,016	44	8,209	9,895	10,936
QoQ growth (%)	32.0	39.1		(18.0)	20.5	10.5
Materials consumption	10,431	6,850	52	6,333	7,191	8,020
Salaries and wages	657	493	33	555	597	605
General and admn. exp.	1,157	957	21	912	921	1,124
(Inc)/Dec in stocks	71	165	(57)	(466)	12	(148)
Operating profit	2,121	1,551	37	874	1,173	1,336
QoQ growth (%)	58.7	71.0		(43.6)	34.2	13.9
Depreciation	71	62	15	62	65	66
EBIT	2,050	1,489	38	812	1,108	1,270
Interest	1	26	(96)	2	2	2
Pre-tax profits	2,049	1,462	40	810	1,106	1,267
QoQ growth (%)	61.6	76.7		(44.6)	36.5	14.6
Prov for taxation	699	516	35	297	387	446
Reported net profit	1,350	946	43	513	719	821
QoQ growth (%)	64.3	78.7		(45.8)	40.2	14.2



# Financial summary

#### Profit and loss account

(Rs. m)

Year-end: December	CY04	CY05	CY06	CY07E	CY08E
Total revenues	24,458	31,999	46,156	64,967	97,748
YoY growth (%)	55.1	30.8	44.2	40.8	50.5
Operating expenses	22,329	28,818	41,389	58,410	87,429
Raw material expenses	16,547	21,311	31,445	44,278	66,619
Excise and taxes	1,856	2,369	3,416	4,808	7,233
Salaries and wages	1,361	1,784	2,414	3,610	5,250
Manufacturing expenses	2,566	3,354	4,113	5,715	8,327
Operating profit	2,129	3,182	4,767	6,557	10,319
YoY growth (%)	54.7	49.5	49.8	37.6	57.4
Operating margin (%)	8.7	9.9	10.3	10.1	10.6
Treasury income	453	511	737	1,250	1,600
EBDITA	2,582	3,692.6	5,504	7,807	11,919
EBDITA margin (%)	10.4	11.4	11.7	11.8	12.0
Depreciation	204	231	265	350	439
EBIT	2,379	3,461	5,239	7,457	11,480
EBIT margin (%)	9.5	10.6	11.2	11.3	11.6
Interest	13	66	7	10	10
Pre-tax profit	2,365	3,395	5,232	7,447	11,470
Pre-tax margin (%)	9.5	10.4	11.2	11.2	11.5
Tax provision	860	1,208	1,829	2,606	4,015
Effective tax rate (%)	36.4	35.6	35.0	35.0	35.0
Adjusted net profit	1,505	2,187	3,403	4,841	7,456
YoY growth (%)	49.2	45.3	55.6%	42.2	54.0
+(-) Extra-ordinary Inc/(Exp.)	38	0	0	0	0
Reported net profit	1,543	2,187	3,403	4,841	7,456



### Balance sheet

(Rs.	m)	

Year-end: December	CY04	CY05	CY06	CY07E	CY08E
Equity capital	424	424	424	424	424
Reserves and surplus	6,823	8,617	11,537	15,895	22,384
Shareholders funds	7,247	9,041	11,961	16,319	22,808
Finance lease obligation	14	27	27	27	27
Unsecured loans	1	0	0	0	0
Long term loans	15	27	27	27	27
Net deferred tax Liability	132	84	84	84	84
Capital employed	7,394	9,153	12,072	16,430	22,919
Gross fixed assets	3,580	4,142	6,242	8,342	10,442
Less accumulated depreciation	1,680	1,875	2,140	2,490	2,929
Add capital work in progress	49	384	0	0	0
Net fixed assets	1,949	2,651	4,102	5,852	7,513
Investments	1,070	872	872	872	872
Current assets loans/Advances	14,064	19,871	28,198	38,726	57,938
Inventory	1,683	2,016	2,803	3,882	5,841
Sundry debtors	6,263	10,293	14,052	19,779	29,758
Cash and bank	4,168	4,010	9,181	12,904	20,177
Loans and advances	1,063	1,275	1,275	1,275	1,275
Other current assets	887	2,278	887	887	887
Current liabilities and provisions	9,689	14,241	21,099	29,019	43,403
Current liabilities	9,279	13,729	20,587	28,507	42,892
Provisions	410	512	512	512	512
Net current assets	4,375	5,630	7,099	9,707	14,535
Capital deployed	7,394	9,153	12,072	16,430	22,919



#### Key ratio's

Year-end: December	CY04	CY05	CY06	CY07E	CY08E
Valuation ratios (x)					
P/E	20.1	27.6	35.2	31.1	20.2
P/BV	4.3	6.7	10.0	9.2	6.6
Mcap/Sales	1.4	2.0	2.8	2.5	1.7
EV/Sales	1.2	1.9	2.6	2.3	1.4
EV/EBDITA	10.4	15.3	20.1	17.7	11.0
EV/Capital employed	3.9	6.8	10.4	9.7	6.6
Growth ratios (%)					
Earnings growth	49.2	45.3	55.6	42.2	54.0
Revenue growth	55.1	30.8	44.2	40.8	50.5
Gross profit growth	43.8	35.1	37.6	40.6	50.5
EBITDA growth	49.9	43.0	49.1	41.9	52.7
Efficiency ratios					
Gross margin (%)	26.8	28.1	23.9	26.4	26.4
EBDITA margin (%)	11.4	12.5	12.9	13.0	13.2
EBIT margin (%)	10.5	11.7	12.3	12.4	12.7
Pre-tax margin (%)	35.8	35.6	35.0	35.0	35.0
Net margin (%)	6.8	7.4	8.0	8.0	8.2
Profitability ratios					
Return on equity (%)	23.2	26.9	32.4	34.2	38.1
Return on capital employed (%)	22.8	27.2	32.1	34.0	37.9
Average collection period (Days)	101.1	126.8	120.0	120.0	120.0
Inventory turnover (Days)	32	32	32	32	32
Creditors (Days)	205	235	235	235	235
Fixed assets turnover (x)	3.3	3.6	4.0	4.2	4.6

Source: Company reports; IDBI Capital Market Services

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Registered Office: 5th floor, Mafatlal Centre, Nariman Point, Mumbai - 400 021. Phones: (91-22) 6637 1212 Fax: (91-22) 2288 5850 Email: info@idbicapital.com

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